Leaf Aptus-II
Installation Guide

853-00991E

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1 Introduction

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About This Guide

This guide includes the necessary instructions for installing a Leaf® Aptus II digital camera back. Each stage in the installation process is explained in the guide as follows:

Chapter 2	Using the Portable Hardware.	Read this chapter to learn how to insert and remove the compact flash card.
Chapter 3	Charging the Batteries	Read this chapter to learn how to charge the batteries for both a compact flash card.
Chapter 4	Mamiya 645 AFD	Instructions on attaching the camera back to the camera body and preparing the camera.
Chapter 5	Working in Tethered Mode	Read this chapter to learn how to connect your camera back to the computer
Chapter 6	Caring for the IR Filter Glass	Read this chapter to learn how to clean the IR filter glass that protects the sensor.

Product Overview

The Leaf Aptus-II digital camera back is the world's first camera back that includes a built-in large (6 x 7 cm) LCD and an innovative graphic user interface. An integrated battery and compact flash (CF) storage card ensure easy shooting. New hardware offers a continuous non-stop burst, and a faster capture rate. These shooting capabilities combined with large storage options give professionals the flexibility to meet the most demanding shooting situations.
A new RAW that uses lossless compression to reduce file size, and a completely new Leaf Capture application enhance workflow and teamwork both on location and in the studio.

Note: *The Leaf Capture and Capture One applications, supplied with your Leaf Aptus-II digital camera back, enable you to capture, view, and manipulate an image so that you can produce a finished product in a single session.*

2 Using the Portable Hardware

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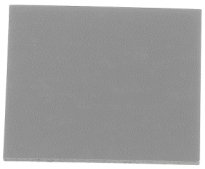
Items Required for the Installation

The following table describes what is included in the Leaf Aptus-II digital camera back kit and which items in the kit are required for the installation.

Important! *To avoid installation and operation problems, use only the accessories supplied in the Leaf digital camera back kit.*

	Kit Contents	**Required for Installation**
	Leaf Aptus-II digital camera back	Yes
	FireWire cable (4.5 m / 15 ft.)	Yes
	Camera-to-Back Sync cable. This cable is included only with the kit for the following cameras: Hasselblad (500 Series), Mamiya RB, Mamiya RZ67/RZ67ProII/RZ67ProIID, and large format.	Yes
	Focusing screen or mask (not included with the Leaf Aptus-II digital camera back for large format cameras)	Yes
	Leaf Capture application and accompanying documentation	Yes
	Quick Installation Guide	Yes

	Kit Contents	Required for Installation
	Cleaning supplies (cleaning liquid, cleaning wipes, and tweezers)	(Keep on hand)
	External power adaptor	No
	Protective Hard Case	No
	Gray card	No
	Two batteries	Yes
	Fast charger for lithium ion batteries	Yes
	12V DC power supply	Yes

	Kit Contents	**Required for Installation**
	Car lead	No
	Three cables for the battery charger	Yes
	Cover for the LCD touch screen	No
	Back cover	No
	Cover for the battery slot	No
	Stylus (spare)	No

Inserting the Compact Flash card

1. Open the compact flash card door.

Figure 2: The compact flash card door

2. Insert the compact flash card.

Figure 3: Insert the compact flash card

Removing the Compact Flash card

Open the compact flash card door, and then press the release button.

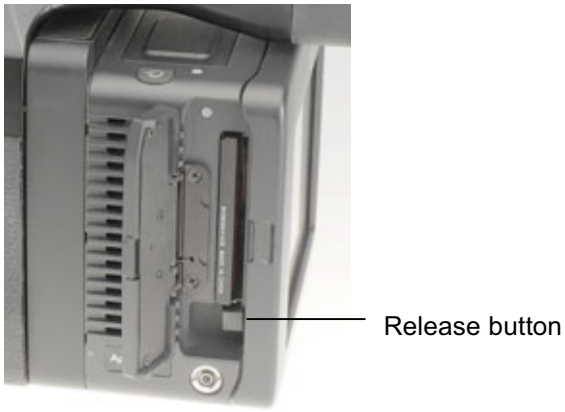


Figure 4: The compact flash release button

Inserting the Battery

3. Press the button on the underside of the Leaf Aptus-II digital camera back to remove the battery slot cover.

Figure 5: Removing the battery slot cover

4. Press the battery into the recess on the underside of the Leaf Aptus-II digital camera back, and then slide it across until it snaps into place.

Figure 6: Inserting the battery

Removing the Battery

Press the battery release button, and then slide the battery out.

Figure 7: Removing the battery

Connecting the Leaf Digital Camera Back to a Power Supply

1. Insert the end of the external power adaptor into the FW port on the Leaf Aptus-II digital camera back.

Figure 8: Insert the external power supply adaptor

2. Connect the other end of the external power adaptor to the 12V DC power supply.

Using the Stylus

The Leaf Aptus-II digital camera back is supplied with a stylus. Use the stylus to tap the touch screen.

Figure 9: The stylus

To remove the stylus for use, slide it out of the slot located at the top of the Leaf Aptus-II digital camera back.

Figure 10: Removing the stylus

Storing the Leaf Aptus-II Digital Camera Back

To protect your digital camera back, store it in the case supplied. Ensure that you place the digital camera back in the case with the sensor cover facing upward.

3 Charging the Batteries

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Charging the Batteries

You can charge the lithium ion battery used with the Leaf Aptus-II camera back using the MCL103 battery charger provided. .

Charging the Battery Using the Hähnel MCL103

***Attention**: Before performing these procedures, refer to the Safety Guide on the accompanying CD.*

➢ **To charge the battery with the 12V DC Power Supply:**

1. Connect one end of the 12V DC power supply cable to the hähnel MCL103 battery charger.
2. Connect the 12V DC power supply to a wall outlet, using the cable provided.

***Note**: The 12V DC power supply is designed for use with both 110V and 220V input voltages.*

***Attention**: Do not use any power supply cables other than the cable provided.*

Figure 11: Connecting the hähnel MCL103 battery charger

3. Insert the battery with contacts facing down and slide the battery fully down into the contacts.
   Once charging begins, an indicator light turns on.
   The indicator light begins to flash when the battery is almost charged.
   Charging is complete when the indicator light turns off.

***Note**: Do not leave the battery in the charger when the charger is not connected to the power supply. This causes the battery to discharge.*

- **To charge the battery with the car lead:**

  1. Connect one end of the car lead cable to the hähnel MCL103 battery charger.
  2. Connect the car lead to the 12V car socket.

- **To remove the battery pack from the charger:**

  Slide the battery off the charger.

***Warning!** Use only the supplied 12V DC power supply or 12V car lighter adaptor.*

***Warning!** Never apply excessive force when connecting or disconnecting a battery.*

***Warning!** Keep all contacts clean.*

***Warning!** Do not force down any of the contacts.*

***Warning!** Do not short circuit the contacts.*

***Warning!** Never store the battery connected to the charger for an extensive period of time.*

***Warning!** Do not expose to excessive heat or naked flame.*

***Warning!** Do not dismantle the product or alter it in any way.*

4 Mamiya 645 AFD

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Before Getting Started

This chapter describes the Leaf Aptus-II digital camera back installation for the Mamiya ***645 AFD*** camera.

Items Required for the Installation

For a detailed list of the items required for installation, see Items Required for the Installation, *page 4*.

Important! *To avoid installation and operation problems, use only the accessories supplied in the Leaf Aptus-II digital camera back kit.*

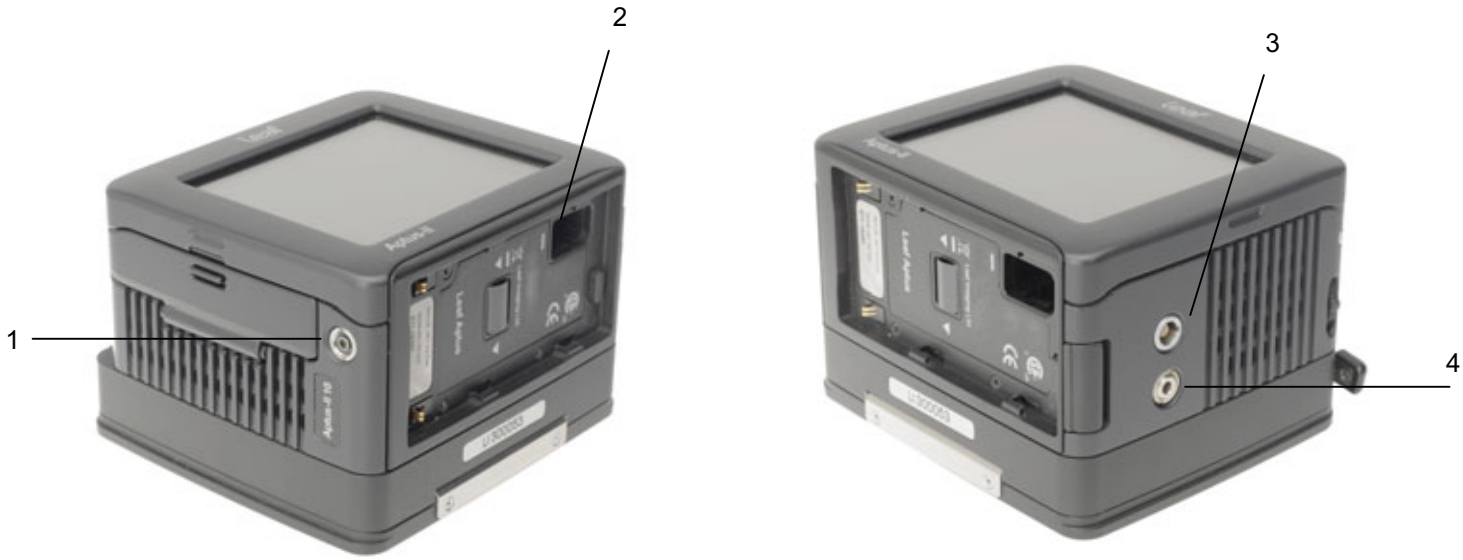
Quick Installation Reference

1. Charge the batteries.
2. Install the focusing screen.
3. Remove the protective cover from the digital camera back and mount the back onto the camera body. If you are working in tethered mode, go straight to step 5.
4. Install the compact flash card. The installation is complete.

Working in tethered mode:

5. Install the Leaf Capture application from the CD.
6. Start the Leaf Capture application.
7. Connect the FireWire cable between the computer and Leaf Aptus-II.
8. After you connect the cable, the application automatically connects to the digital camera back. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note*: If you want to work with an external flash or strobe, connect the Flash Sync cable between the camera and the flash or strobe unit.*



[1] Flash Sync socket
[2] FireWire port
[3] Camera Control socket
[4] Camera-to-Back Sync socket

Figure 12: The Leaf Aptus-II digital camera back ports and sockets

Figure 13: The Leaf Aptus-II digital camera back on a Mamiya 645 AFD camera

Installation Procedures

The procedures in this section together constitute the basic installation process.

Installing the Focusing Screen

The focusing screen enables you to view the exact area that the Leaf Aptus-II digital camera back captures. Before you can install the supplied focusing screen, you must remove the camera's original focusing screen.

➢ **To remove the original focusing screen:**

1. Remove the lens.
2. Using the supplied tweezers, pull the focusing screen release lever [A] located inside the lens mount (upper center) to release the focusing screen.

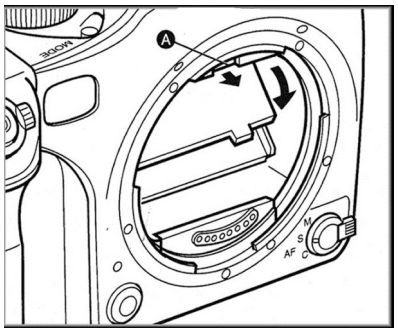


Figure 14: Pulling the focusing screen release lever

3. Remove the original focusing screen from the focusing screen frame by grasping the tab on the edge of the screen with the tweezers, and then gently pulling up and out.

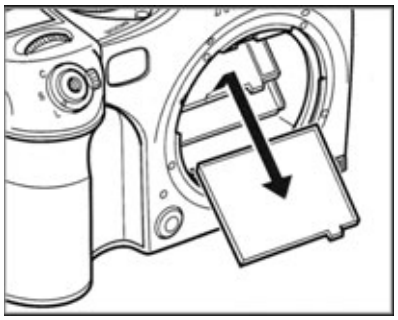


Figure 15: Removing the original focusing screen

4. Be careful not to touch or damage the mirror.

➢ **To attach the supplied focusing screen:**

1. Using the supplied tweezers, hold the focusing screen tab and place the focusing screen on the focusing screen frame.

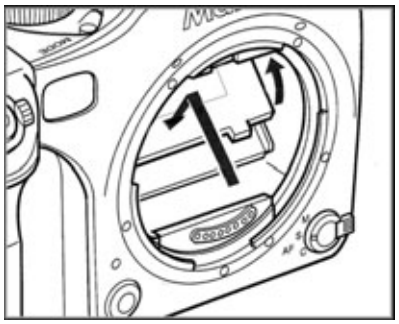


Figure 16: Installing the supplied focusing screen

2. Using the tweezers, push the focusing screen frame upwards until you hear a click.

Important: *Never apply pressure on other parts as this might affect focus.*

Handle the focusing screen surfaces with care. They are delicate and easily damaged.

Never touch the surface of the focusing screen. If there is dust on the screen, use a blower or soft lens brush to remove it. If the focusing screen needs more thorough cleaning, contact the nearest authorized Leaf service center or your dealer. Do not attempt to clean the focusing screen yourself.

Attaching the Leaf Digital Camera Back to the Camera Body

1. Mount the Mamiya 645 AFD camera body on a tripod.
2. Remove the protective cover plate from the digital camera back.
3. Align the groove on the digital camera back with the holder bracket on the camera body, and then bring the top of the digital camera back to the camera body.
4. Push the top of the camera back toward the camera body until it locks into place.

Figure 17: Attaching the Leaf Aptus-II digital camera back to a Mamiya 645 camera body

Connecting the Cables

Connecting the Flash Sync Cable

If you want to use flash or strobe lighting, connect the Flash Sync cable to the Flash Sync socket of the Mamiya 645 AFD camera.

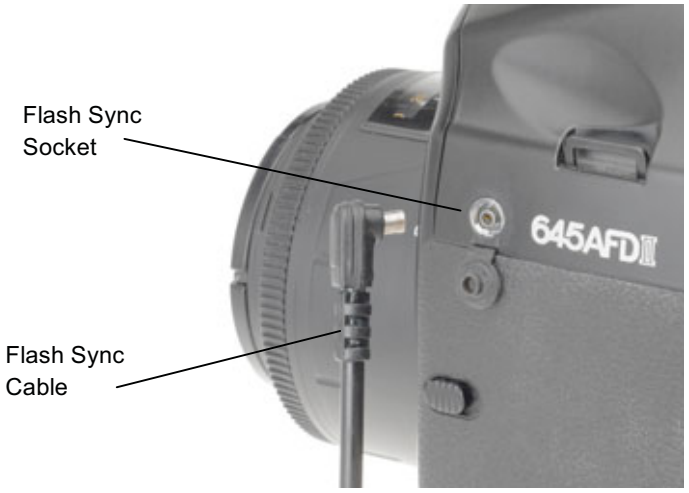


Figure 18: Connecting the Flash Sync cable to the Mamiya 645 AFD camera

Connecting the FireWire Cable

For information about connecting the FireWire cable, see Working in Tethered Mode, page 65.

Removing the Leaf Digital Camera Back from the Camera Body

1. Place the camera on a steady, flat surface.
2. Turn the camera off.
3. Disconnect the FireWire cable.
4. Slide and push the Release button.

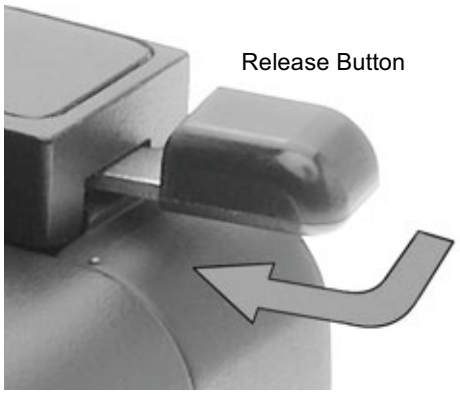


Figure 19: Removing the Leaf Aptus-II digital camera back from a Mamiya 645 AFD camera

5. Tilt the camera back away from the camera body to remove it.

5

Hasselblad H1

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Before Getting Started

This chapter describes the Leaf Aptus-II digital camera back installation for the Hasselblad H1 camera.

Items Required for the Installation

For a detailed list of the items required for installation, see *Items Required for the Installation*, *page 4***.**

Important! *To avoid installation and operation problems, use only the accessories supplied in the Leaf Aptus-II digital camera back kit.*

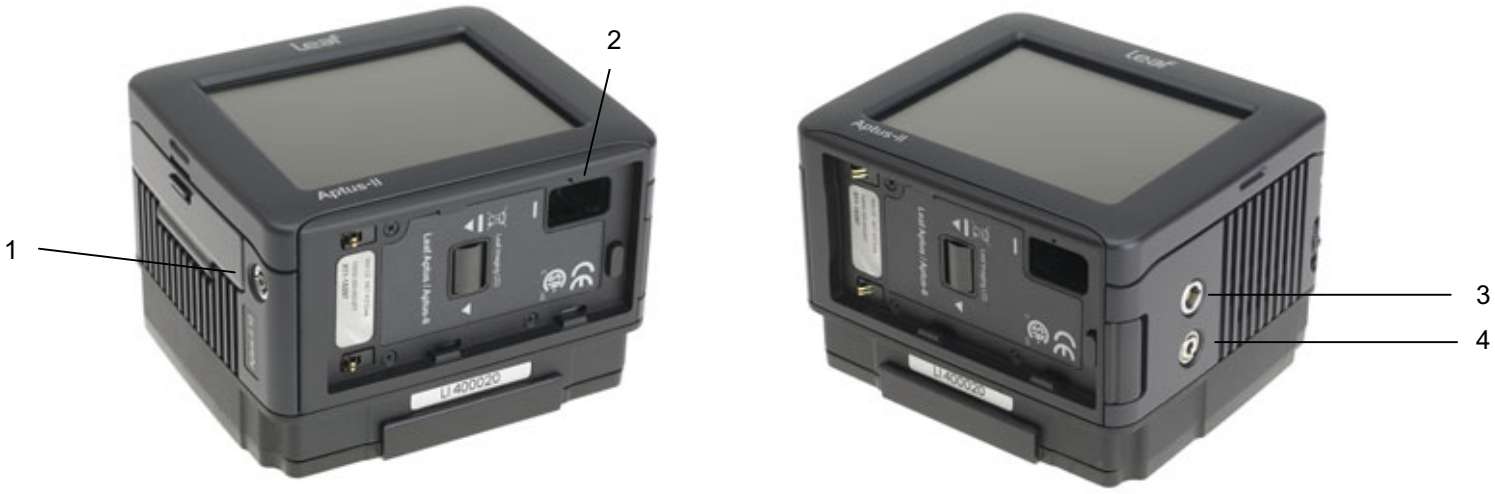
Quick Installation Reference

1. Install the focusing screen.
2. Remove the protective cover from the digital camera back and mount the back onto the camera body. If you are working in tethered mode, go straight to step 4.
3. Install the compact flash card. The installation is complete.

Working in tethered mode:

4. Install the Leaf Capture application from the CD and start the application.
5. Connect the FireWire cable between the computer and Leaf Aptus-II.
6. After you connect the cable, the application automatically connects to the digital camera back. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note*: If you want to work with an external flash or strobe, connect the Flash Sync cable between the camera and the flash or strobe unit.*



[1] Flash Sync socket
[2] FireWire port

[3] Camera Control socket
[4] Camera-to-Back Sync socket

Figure 20: The Leaf Aptus-II digital camera back ports and sockets

Figure 21: The Leaf Aptus-II digital camera back on a Hasselblad H camera

Installation Procedures

The procedures in this section together constitute the basic installation process.

Installing the Leaf Aptus-II Mask

The Leaf Aptus-II mask enables you to view the exact area that the Leaf Aptus-II digital camera back captures. Before you can install the mask, you must remove the camera's viewfinder.

➢ **To install the Leaf Aptus mask:**

1. Place the mask on top of the focusing screen. Avoid touching the surface with your fingers.

Figure 22: Inserting the Leaf Aptus mask

2. Reattach the camera viewfinder.

Important! *Never touch the surface of the mask. Use a blower or soft lens brush to remove dust.*

If you remove the mask, be careful not to scratch the focusing screen of the camera.

Attaching the Leaf Digital Camera Back to the Camera Body

1. Mount the camera body on a tripod.
2. Remove the protective cover plate from the digital camera back.
3. Position the magazine retention groove onto the magazine support on the camera body.
4. Swing the digital camera back toward the camera body and firmly press it into place until you hear a click.

Figure 23: Attaching the Leaf Aptus-II digital camera back to the camera body

Connecting the Cables

Connecting the Flash Sync Cable

***Note**: Connecting the Flash Sync cable is optional.*

Connect the Flash Sync cable to the Flash Sync socket of the Hasselblad H1 camera body.

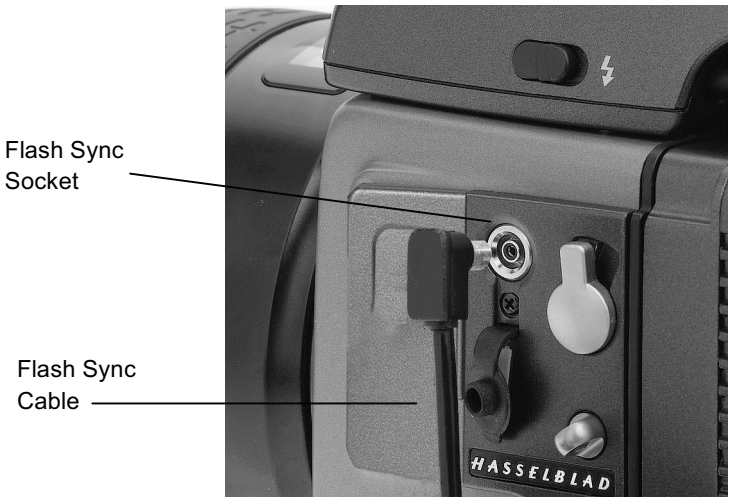


Figure 24: Connecting the Flash Sync cable to the Hasselblad H1

Connecting the FireWire Cable

For information about connecting the FireWire cable, see Working in Tethered Mode, page 65.

Removing the Leaf Digital Camera Back from the Camera Body

1. Place the camera on a steady, flat surface.
2. Turn the camera off.
3. Disconnect the FireWire cable.
4. Press gently on the center of the magazine release button, twist it clockwise until it stops (1), and then press the button firmly inwards toward the camera body (2) to release Leaf Aptus-II.

Important! *Make sure to press on the center of the magazine release button, not on the lever.*

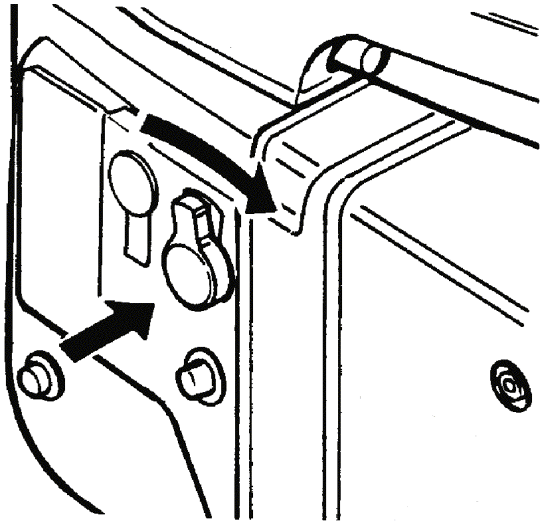


Figure 25: Removing the Leaf Aptus-II digital camera back from a a Hasselbald H1 camera

6 Hasselblad (500 Series)

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Before Getting Started

This chapter describes the Leaf Aptus-II digital camera back installation for the Hasselblad (500 series).

Items Required for the Installation

For a detailed list of the items required for installation, see *Items Required for the Installation*, *page 4***.**

Important! *To avoid installation and operation problems, use only the accessories supplied in the Leaf Aptus-II digital camera back kit.*

Quick Installation Reference

1. Install the focusing screen.
2. Remove the protective cover from the digital camera back and mount the back onto the camera body.
3. Connect the Camera-to-Back Sync cable between the camera lens and Leaf Aptus-II. If you are working in tethered mode, go straight to step 5.
4. Install the compact flash card. The installation is complete.

Working in tethered mode:

5. Install the Leaf Capture application from the CD and start the application.
6. Connect the FireWire cable between the computer and Leaf Aptus-II.
7. After you connect the cable, the application automatically connects to the digital camera back. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note*: If you want to work with an external flash or strobe, connect the Flash Sync cable between the camera and the flash or strobe unit.*

For Hasselblad 553ELX, and 500EL/M, 503CW + winder users—To trigger the camera from the computer, connect the Camera Control cable (not supplied with the camera back) to the camera body and Leaf Aptus-II.

For Hasselblad 555 ELD users—When working in B-mode, the camera release button must be in Film position.

[1] Flash Sync socket
[2] FireWire port

[3] Camera Control socket
[4] Camera-to-Back Sync socket

Figure 26: The Leaf Aptus-II digital camera back ports and sockets

Figure 27: The Leaf Aptus-II digital camera back with a Hasselblad (500 series) camera

Installation Procedures

The procedures in this section together constitute the basic installation process.

Installing the Focusing Screen

The focusing screen mask enables you to view the exact area that the digital camera back captures.

1. Remove the viewfinder from the camera body according to the manufacturer's instructions.
2. Place the focusing screen mask on top of the Hasselblad focusing screen.
3. Reinstall the camera viewfinder.

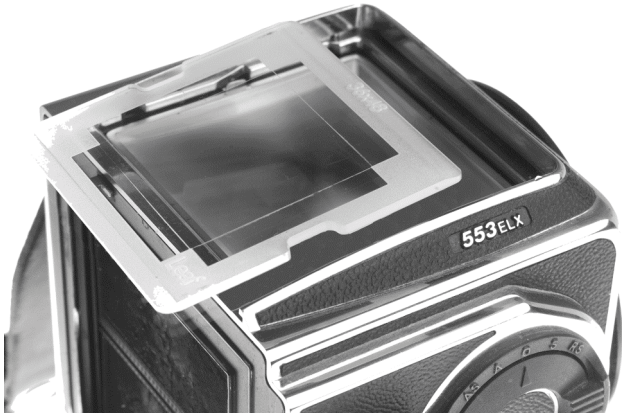


Figure 28: Installing Hasselblad focusing screen mask

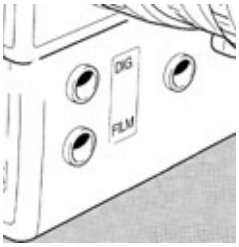
Attaching the Leaf Digital Camera Back to the Camera Body

1. Mount the Hasselblad camera on a tripod.
2. Remove the protective cover plate from the digital camera back.
3. Connect the digital camera back to the camera body in either portrait or landscape orientation. Rest the digital camera back on the lower supports making sure that the lugs are properly engaged in the recesses.
4. Move the digital back toward the camera body and check that the upper support hooks on the camera fit into the slots on Leaf Aptus-II, and lock it into place.

Figure 29: Connecting the Leaf Aptus-II digital camera back to the camera body

***Notes**: To switch from landscape to portrait orientation, remove the Leaf Aptus-II digital camera back and rotate it 90° counterclockwise, then attach it again to the camera body.*

For Hasselblad 555 ELD users—Insert the Release button into the Dig Release port.



Connecting the Cables

Connecting the Camera-to-Back Sync Cable

1. Insert one end of the Camera-to-Back Sync cable into the Hasselblad Lens Flash socket.
2. Insert the other end of the cable into the Camera-to-Back Sync socket on Leaf Aptus-II.

Figure 30: Connecting a Camera-to-Back Sync cable to the Leaf Aptus-II digital camera back

Connecting the Flash Sync Cable

Connect the Flash Sync cable to the Flash Sync socket on Leaf Aptus-II.

Figure 31: Connecting a Flash Sync cable to Leaf Aptus-II

Connecting the Camera Control Cable

***Notes**: This section is for users of Hasselblad 553ELX, 503CW + winder, and 503EL-M cameras only.*

The Camera Control cable should be used in Remote mode only when you trigger the camera from the application.

The Camera Control cable is not supplied with Leaf Aptus-II. It can be ordered separately.

Insert one end of the cable into the Hasselblad Remote Control socket, and then insert the opposite end of the cable into the Camera Control socket on Leaf Aptus-II.

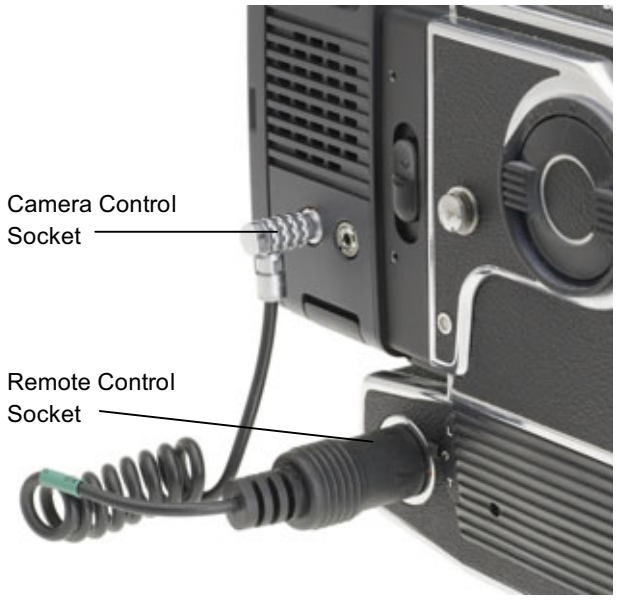


Figure 32: Connecting a Camera Control cable to a Hasselblad 553ELX/500 EL-M camera

Figure 33: Connecting a Camera Control cable to a Hasselblad 503CW camera

Connecting the FireWire Cable

For information about connecting the FireWire cable, see Working in Tethered Mode, page 65.

Removing the Leaf Digital Camera Back from the Camera Body

1. Place the camera on a steady, flat surface.
2. If any of the following cables are connected, disconnect them:

- FireWire cable
- Camera-to-Back Sync cable
- Flash Sync cable

3. Slide the Release button to the right side.

Release Button

Figure 34: Removing the Leaf Aptus-II digital camera back from a Hasselblad camera

4. Tilt the camera back away from the camera body to remove it.

7 Contax 645

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Before Getting Started

This chapter describes the Leaf Aptus-II digital camera back installation for the Contax 645 camera.

Items Required for the Installation

For a detailed list of the items required for installation, see *Items Required for the Installation*, *page 4***.**

Important! *To avoid installation and operation problems, use only the accessories supplied in the Leaf Aptus-II digital camera back kit.*

Quick Installation Reference

1. Install the focusing screen.
2. Remove the protective cover from the Leaf Aptus-II digital camera back, and mount the back onto the camera body. If you are working in tethered mode, go straight to step 4.
3. Install the compact flash card. The installation is complete.

Working in tethered mode:

4. Install the Leaf Capture application from the CD.
5. Start the Leaf Capture application.
6. Connect the FireWire cable between the computer and Leaf Aptus-II.

After you connect the cable, the application automatically connects to the digital camera back. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note*: If you want to work with an external flash or strobe, connect the Flash Sync cable between the camera and the flash or strobe unit.*

[1] Flash Sync socket
[2] FireWire port

[3] Camera Control socket
[4] Camera-to-Back Sync socket

Figure 35: The Leaf Aptus-II digital camera back ports and sockets

Figure 36: The Leaf Aptus-II digital camera back with a Contax 645 camera

Installation Procedures

The procedures in this section together constitute the basic installation process.

Installing the Focusing Screen

The focusing screen enables you to view the exact area that the Leaf Aptus-II digital camera back captures. Before you can install the supplied focusing screen, you must remove the camera's original focusing screen.

➢ **To remove the original focusing screen:**

1. Remove the Contax viewfinder.
2. Pick up the screen frame claw with your finger tip, and pull it gently upwards to remove the focusing screen.

➢ **To install the supplied focusing screen:**

1. Insert the edge of the focusing screen underneath the screen pressing spring.

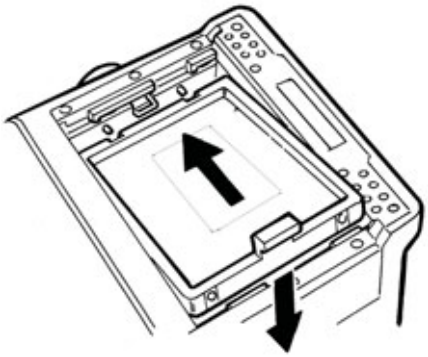

Figure 37: *Installing the focusing screen*

2. Press the focusing screen down gently, until it locks into place with a click.

Important! *Do not press or bend the screen pressing spring directly, it may damage the camera.*

Never touch the surface of the focusing screen. If there is dust on the screen, use a blower or soft lens brush to remove it.

Store unused focusing screens in the screen case according to the instructions on the case.

Attaching the Leaf Digital Camera Back to the Camera Body

1. Mount the Contax 645 camera body on a tripod.
2. Remove the protective cover plate from the Leaf Aptus-II digital camera back.
3. Attach the Leaf Aptus-II digital camera back to the camera body by moving the Leaf Aptus-II digital camera back toward the camera body and check that the camera's support hooks fit into the slots on the Leaf Aptus-II digital camera back.
4. Push the top of the Leaf Aptus-II digital camera back toward the camera body until it locks into place.

Figure 38: Attaching the Leaf Aptus-II digital camera back to a Contax 645 camera body

Connecting the Cables

Connecting the Flash Sync Cable

***Note**: Connecting the Flash Sync cable is optional.*

Figure 39: Connecting the Flash Sync cable to a Contax 645 camera

Connecting the FireWire Cable

For information about connecting the FireWire cable, see Working in Tethered Mode, page 65.

Removing the Leaf Digital Camera Back from the Camera Body

1. Place the camera on a steady, flat surface.
2. Turn the camera off.
3. Disconnect the FireWire cable.
4. Rotate the release button to the right and push it in.

Figure 40: Removing the Leaf Aptus-II digital camera back from Contax 645 camera

5. Tilt the camera back away from the camera body to remove it.

8 Mamiya RB

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Before Getting Started

This chapter describes the Leaf Aptus-II digital camera back installation for the Mamiya RB camera.

Items Required for the Installation

For a detailed list of the items required for installation, see *Items Required for the Installation, page 4*. In addition to the items shown, the Mamiya RB digital camera back kit also includes the Mamiya RB adaptor plate. You will need the plate for the installation procedure.

Important! *To avoid installation and operation problems, use only the accessories supplied in the Leaf digital camera back kit.*

Quick Installation Reference

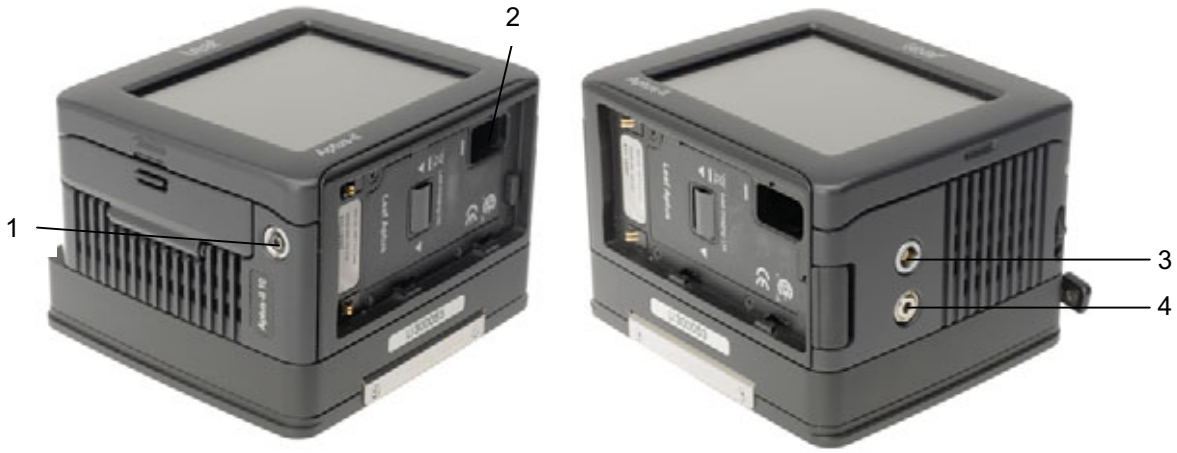
1. Install the focusing screen mask into the viewfinder.
2. Mount the adaptor plate on the camera body.
3. Remove the protective cover from the Leaf Aptus-II digital camera back.
4. Attach the digital camera back to the adaptor plate.
5. Connect the Camera-to-Back Sync cable between the camera lens and the Leaf Aptus-II digital camera back. If you are working in tethered mode, go to step 7 now.
6. Install the compact flash card. The installation is complete.

Working in tethered mode:

7. Install the Leaf Capture application from the CD and start the application.
8. Connect the FireWire cable between the computer and the Leaf Aptus-II digital camera back.

   After you connect the cable, the application automatically connects to the Leaf Aptus-II digital camera back. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note: *If you want to work with an external flash or strobe, connect the Flash Sync cable between the Leaf Aptus-II digital camera back and the flash or strobe unit.*



[1] Flash Sync socket
[2] FireWire port
[3] Camera Control socket
[4] Camera-to-Back Sync socket

Figure 41: Ports and sockets on the Leaf Aptus-II digital camera back

Figure 42: The Leaf Aptus-II digital camera back on a Mamiya RB camera

Installation Procedures

The procedures in this section together constitute the basic installation process.

Installing the Frame Mask

The frame mask enables you to view the exact area that the Leaf Aptus-II digital camera back captures.

1. Remove the viewfinder from the camera body according to the manufacturer's instructions.
2. Place the frame mask on top of the Mamiya RB focusing screen.

Figure 43: Installing the focusing screen mask

3. Reinstall the viewfinder on the camera body according to the manufacturer's instructions.

Attaching the Leaf Digital Camera Back to the Camera Body

1. Mount the Mamiya RB camera on a tripod.
2. Flip the locking lever on the camera body from left to right into the Open position.
3. Attach the Mamiya RB adaptor plate to the camera body.
4. Insert the four studs on the adaptor into the four holes on the camera body.

Figure 44: Attaching the Mamiya RB adaptor plate

5. Secure the adaptor plate to the camera body by flipping the locking lever on the camera body from right to left into the Locked position.
6. Remove the protective cover from Leaf Aptus-II.
7. Connect the digital camera back to the camera body. Rest the digital camera back on the lower supports making sure that the lugs are properly engaged in the recesses.
8. Move the digital camera back toward the camera body while making sure that the camera's upper support hooks fit into the slots on Leaf Aptus-II.
9. Push the top of the digital camera back toward the camera body until it locks in place.

Figure 45: Attaching the Leaf Aptus-II digital camera back to a Mamiya RB camera

Connecting the Cables

1. **Connecting the Camera-to-Back Sync Cable**
2. Insert one end of the cable into the Mamiya Lens Flash socket.
3. Insert the opposite end of the cable into the Camera-to-Back Sync socket on the adaptor plate.

Figure 46: Connecting a Camera-to-Back Sync cable to Leaf Aptus-II

Connecting the Flash Sync Cable

Note: *You can use only external flash or strobe light with Leaf Aptus-II.*

Connect the Flash Sync cable to the Flash Sync connector on Leaf Aptus-II.

Figure 47: Connecting a Flash Sync cable to the Leaf Aptus-II digital camera back

Connecting the FireWire Cable

For information about connecting the FireWire cable, see *Working in Tethered Mode, page 65*.

Removing the Leaf Digital Camera Back from the Camera Body

1. Place the camera on a solid, steady surface.
2. If any of the following cables are connected, disconnect them:
   - FireWire cable
   - Camera-to-Back Sync cable
   - Flash Sync cable
3. Slide and push the Release button.

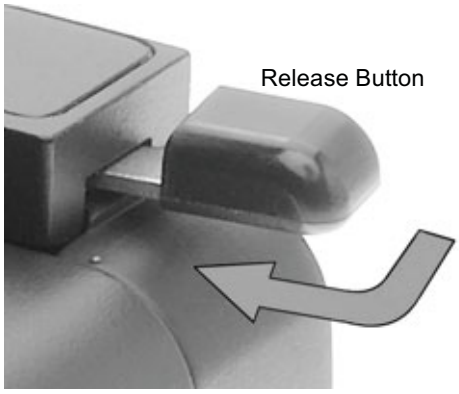


Figure 48: Removing the Leaf Aptus-II digital camera back from a Mamiya RB camera

4. Tilt the camera back away from the camera body to remove it.

5 Mamiya RZ67/RZ67ProII/ RZ67ProIID

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Before Getting Started

This chapter describes the Leaf Aptus-II digital camera back installation for the Mamiya RZ67, Mamiya RZ67ProII, and Mamiya RZ67 ProIID cameras.

Items Required for the Installation

For a detailed list of the items required for installation, see *Items Required for the Installation, page 4*. In addition to the items shown, your kit will include the Mamiya RZ67 adaptor plate. You will need the adaptor plate for the installation procedure.

Important! *To avoid installation and operation problems, use only the accessories supplied in the Leaf digital camera back kit.*

Quick Installation Reference

1. Install the focusing screen mask into the viewfinder.
2. Mount the adaptor plate on the camera body.
3. Remove the protective cover from the Leaf Aptus-II digital camera back.
4. Attach the digital camera back to the adaptor plate.
5. Connect the Camera-to-Back Sync cable between the camera lens and Leaf Aptus-II. If you are working in tethered mode, go straight to step 7.
6. Install the compact flash card. The installation is complete.

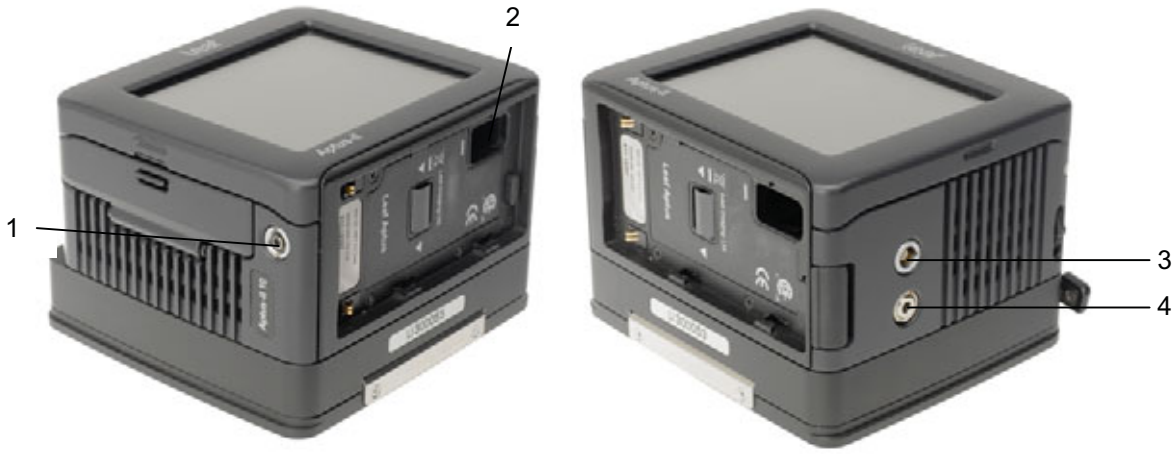
Working in tethered mode:

7. Install the Leaf Capture application from the CD and start the application.
8. Connect the FireWire cable between the computer and Leaf Aptus-II.

   After you connect the cable, the application automatically connects to the digital camera back. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note: *If you want to work with an external flash or strobe, connect the Flash Sync cable between the Leaf Aptus-II digital camera back and the flash or strobe unit.*

Note: *To trigger the camera from the computer, connect the Camera Control cable (not supplied with the camera back) between the camera body and Leaf Aptus-II.*



[1] Flash Sync socket
[2] FireWire port
[3] Camera Control socket
[4] Camera-to-Back Sync socket

Figure 49: Ports and sockets on the Leaf Aptus-II digital camera back

Figure 50: The Leaf Aptus-II digital camera back on a Mamiya RZ67 camera

Installation Procedures

The procedures in this section together constitute the basic installation process.

Installing the Focusing Screen Mask

The focusing screen mask enables you to view the exact area that Leaf Aptus-II digital camera back captures.

1. Remove the viewfinder from the camera body according to the manufacturer's instructions.
2. Remove the focusing screen, and then replace it with the supplied focusing screen.
3. Reinstall the viewfinder on the camera body according to the manufacturer's instructions.

Figure 51: Installing the focusing screen

Attaching the Leaf Digital Camera Back to the Camera Body

1. Mount the Mamiya RZ67, Mamiya RZ67 Pro II, or Mamiya RZ67 Pro IID camera on a tripod.
2. Insert the four studs on the Mamiya camera body into the four holes on the adaptor.

Figure 52: Connecting the Leaf Aptus-II digital camera back

3. Secure the adaptor plate to the camera body by flipping the locking lever from right to left into the locked position.
4. Remove the protective cover from Leaf Aptus-II.
5. Connect the digital camera back to the camera body. Rest the digital camera back on the lower supports making sure that the lugs are properly engaged in the recesses.
6. Move the camera back toward the camera body and check that the camera's upper support hooks fit into the slots on the camera back, and lock it into place.
7. Lock the digital camera back into place.

Figure 53: Locking the Leaf Aptus-II digital camera back into position

Note: *Make sure the Multiple/Revolving lever is set to* ***M****.*

➢ **To change the orientation of Leaf Aptus-II:**

1. Switch the Multiple/Revolving lever on the side of the Mamiya RZ67 camera to **R** position.
2. To switch from landscape to portrait orientation, gently rotate the digital camera back 90° clockwise until it snaps into place.

Connecting the Cables

This section contains procedures for connecting various cables for use with the Mamiya RZ67 camera.

Connecting the Camera Control Cable

Note: *Make sure the lever on the Camera Control cable is in* ***O*** *position.*

1. Insert one end of the Camera Control cable (lever facing down) into the Mamiya release socket on the front of the camera.
2. Turn the lever to the **L** position to lock it.
3. Insert the opposite end of the cable into the Camera Control socket on Leaf Aptus-II.

Figure 54: Connecting the Camera Control Cable to Leaf Aptus-II

Connecting the Camera-to-Back Sync Cable

1. Insert one end of the Camera-to-Back Sync cable into the Mamiya Lens Flash socket.
2. Insert the other end of the cable into the Camera.

Figure 55: Connecting a Camera-to-Back Sync cable to Leaf Aptus-II

Connecting the Flash Sync Cable

Note: *The Leaf Aptus-II digital camera back together with the Flash Sync cable is only suitable for use with external flash or strobe lighting.*

Connect the flash sync cable to the Flash Sync connector on Leaf Aptus-II.

Figure 56: Connecting a Flash Sync Cable to Leaf Aptus-II

Connecting the FireWire Cable

For information about connecting the FireWire cable, see Working in Tethered Mode, page 65.

Removing the Leaf Digital Camera Back From the Camera Body

1. Place the camera on a steady, flat surface.
2. If any of the following cables are connected, disconnect them:
   - FireWire cable
   - Camera Control cable
   - Camera-to-Back Sync cable
   - Flash Sync cable
3. Slide and push the Release button.

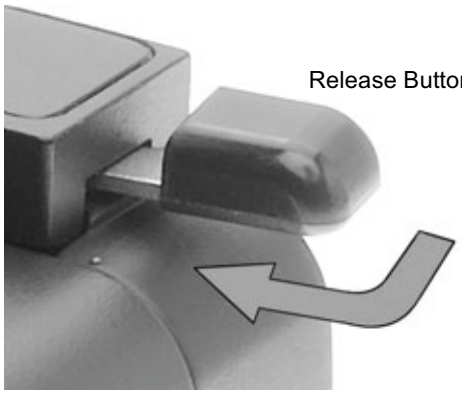


Figure 57: Removing the Leaf Aptus-II digital camera back from Mamiya 645 AF-D camera.

4. Tilt the camera back away from the camera body to remove it.

6 Large Format

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Before Getting Started

This chapter describes the Leaf Aptus-II digital camera back installation for large format cameras and other view cameras.

With the Rollei or Schneider electronic shutter and the Rollei Lens Control or Schneider Shutter Control unit, the Leaf Capture application enables you to change shutter speed and lens aperture on the large format camera from the application.

The Leaf Aptus-II digital camera back can also be used with a mechanical shutter lens such as the Copal shutter.

Items Required for the Installation

For a detailed list of the items required for installation, see *Items Required for the Installation, page 4.*

The following table shows the extra items that are required for the Leaf Aptus-II digital camera back installation when working with a large format camera

Important: *To avoid installation and operation problems, use only the accessories supplied with the Leaf digital camera back.*

Items	**Required for Basic Installation**
4” x 5” Graflok adaptor or other large format adaptor	Yes
Rollei Lens Control or Schneider Shutter Control	Optional
Lens Control power interface	Optional
Rollei-Aptus II Lens Control interface cable	Optional
Schneider-Aptus II Shutter Control interface cable	Optional

Quick Installation Reference

Graflok adaptor

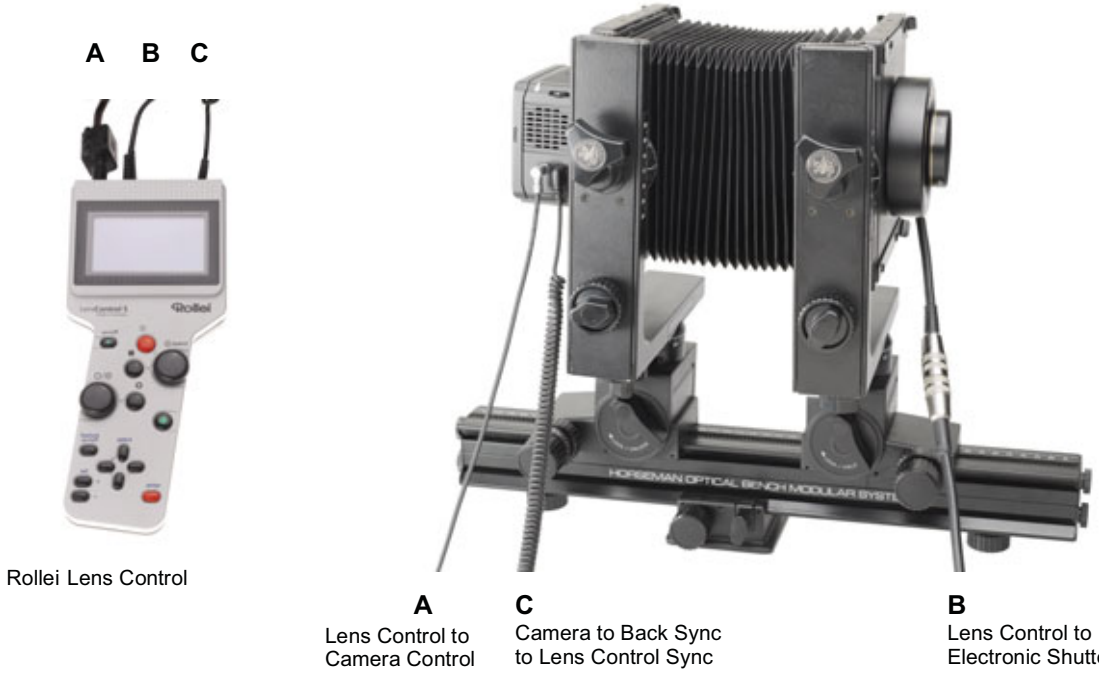

Figure 58: Connecting the Leaf Aptus-II digital camera back to a large format camera and Rollei Lens Control

The Digital Camera Back on a Large Format Camera with a Rollei Electronic Shutter

1. Make sure the camera is securely mounted on a tripod.
2. Attach the lens with the Rollei shutter to the large format camera.
3. Attach the adaptor e.g. Graflok, to the back of the camera and secure it.
4. Remove the protective cover from Leaf Aptus-II.
5. Attach the digital camera back to the adaptor.
6. Connect the cable of the Rollei Lens Control to the Rollei electronic shutter cable.

5. Connect one end of the Rollei-Aptus II Lens Control interface cable to the B port of the Rollei Lens Control and the other end to the Camera Control jack of Leaf Aptus-II.
6. Insert one end of the Camera-to-Sync cable into the Rollei Lens Control Sync jack and the other end into the Camera-to-Back Sync jack on Leaf Aptus-II. If you are working in tethered mode, go to step 8 now.
7. Install the compact flash card and power up.

Working in tethered mode:

8. Install the Leaf Capture application from the CD.
9. Start the Leaf Capture application.
10. Connect the FireWire cable between the computer and Leaf Aptus-II.
11. After you connect the cable, the application automatically connects to Leaf Aptus-II. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note: *If you want to work with an external flash, connect the Flash Sync cable between the Leaf Aptus-II digital camera back and the flash or strobe unit.*
For information about connecting the FireWire cable, see Working in Tethered Mode, page 65.

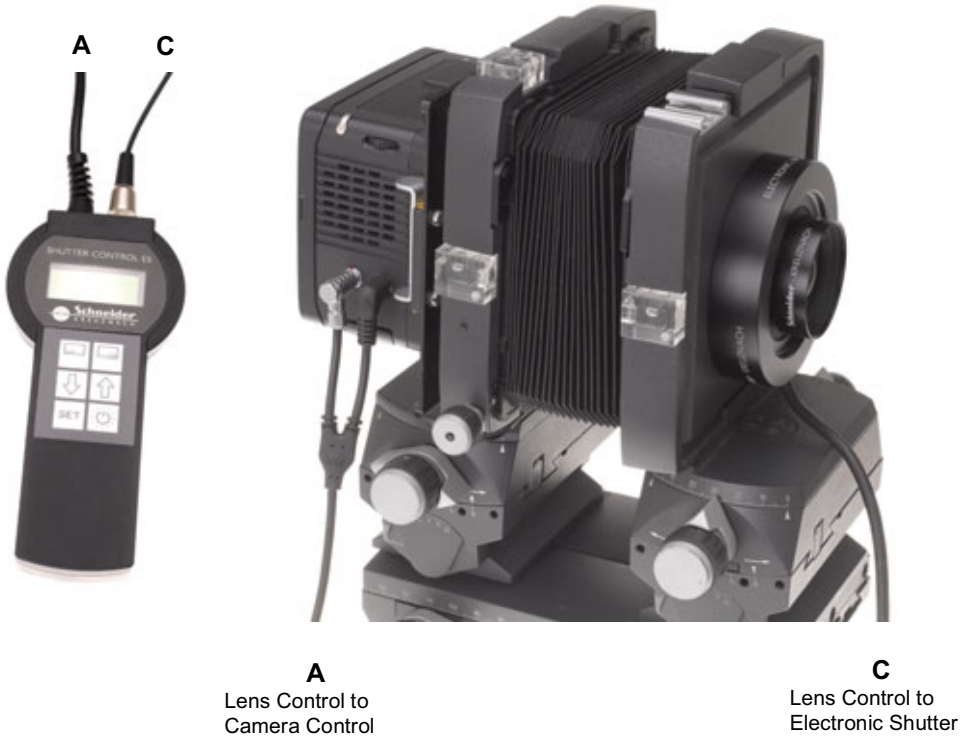

Figure 59: Connecting the Leaf Aptus-II digital camera back to a large format camera and Schneider Shutter Control

The Digital Camera Back on a Large Format Camera with a Schneider Electronic Shutter

1. Make sure the camera is securely mounted on a tripod.
2. Attach the lens with the Schneider shutter to the large format camera.
3. Attach the adaptor (e.g. Graflok) to the back of the camera and secure it.
4. Remove the protective cover from Leaf Aptus-II.
5. Attach the digital camera back to the adaptor.
6. Connect the cable of the Schneider Shutter Control to the Schneider electronic shutter cable.
7. Connect the single end of the Schneider-Aptus II Lens Control interface cable to the port of the Lens Control and attach the two other ends to the Camera Control and Sync ports of Leaf Aptus-II.
8. If you are working in tethered mode, go to step 10 now.
9. Install the compact flash card and power up the back and the Lens Control.

Working in tethered mode:

10. Install the Leaf Capture application from the CD.
11. Start the Leaf Capture application.
12. Connect the FireWire cable between the computer and Leaf Aptus-II.
13. After you connect the cable, the application automatically connects to Leaf Aptus-II. When the connection is established, the LED indicator on the digital camera back turns from orange to green.
14. After you connect the cable, the application automatically connects to Leaf Aptus-II. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Notes: *If you want to work with an external flash, connect the Flash Sync cable between the Leaf Aptus-II digital camera back and the flash or strobe unit.*

For information about connecting the FireWire cable, see Working in Tethered Mode, page 65.

Using a Mechanical Shutter Lens

1. Make sure the camera is securely mounted on a tripod.
2. Attach the mechanical shutter lens to the large format camera.
3. Attach the Graflok adaptor to the back of the camera and secure it.
4. Remove the protective cover from Leaf Aptus-II.
5. Attach the digital camera back to the Graflok adaptor.

6. Insert one end of the Camera-to-Sync cable into the mechanical shutter lens and the other end into the Camera-to-Back Sync socket of Leaf Aptus-II. If you are working in tethered mode, go to step 8 now.
7. Install the compact flash card. The installation is complete.

Working in tethered mode:

8. Install the Leaf Capture application from the CD.
9. Start the Leaf Capture application.
10. Connect the FireWire cable between the computer and Leaf Aptus-II.
11. The application automatically connects to Leaf Aptus-II. When the connection is established, the LED indicator on the digital camera back turns from orange to green.

Note: *If you want to work with an external flash, connect the Flash Sync cable between the Leaf Aptus-II digital camera back and the Flash/Strobe units.*

Figure 60: Large format cable with a mechanical shutter lens

8 Working in Tethered Mode

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Connecting the FireWire Cable

Important: *The information in this chapter is relevant to all cameras in this installation guide. Follow the specific installation procedures for the camera you are using. It is important that you connect the FireWire cable correctly in order not to cause unnecessary damage.*

Important: *To avoid connection problems, use only the Leaf FireWire cable and repeater supplied with Leaf Aptus-II.*

The FireWire cable (IEEE 1394A) links the computer to Leaf Aptus-II. The cable carries both communication signals and electrical power. The cable is a hot-plug cable that can be connected or disconnected without turning the computer off or quitting the application.

1. Connect one end of the FireWire cable to the port at the bottom of Leaf Aptus-II. Make sure that the FireWire cable connector is aligned to the left of Leaf Aptus-II.

Figure 61: Connecting the FireWire cable to the Leaf Aptus-II digital camera back

2. Connect the other end of the cable to the port on the computer.

Tip: *When you connect the FireWire cable after you start the Leaf Capture application, the application automatically connects to the Leaf Aptus-II digital camera back and recognizes the connected camera type.*

Attaching the Repeater

Note: *Attaching the repeater is optional.*

Note: *If you want to extend the FireWire cable from 4.5m / 15 ft. to 9m / 30 ft., you can purchase the Leaf Repeater and Cable Kit.*

1. Connect one of the FireWire cables from the computer to the single-side connection of the repeater.
2. Connect the other FireWire cable from the digital camera back to one of the ports on the double-side connection of the repeater.

Figure 62: Attaching the repeater

Note: *To comply with the CE/FCC standard regulations, it is recommended to use the FireWire cables that are supplied by Leaf.*

9 Caring for the IR Filter Glass

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Importance of the Protective IR Filter Glass

The Leaf Aptus-II digital camera back has a protective IR filter glass over the sensor. The sensor is the most important and expensive part of your Leaf Aptus-II. It is the component that converts the photographic image viewed by the camera into an electronic signal which can be processed by the Macintosh computer.

Figure 63: Protective IR filter glass on the underside of the Leaf Aptus-II digital camera back

Warning!

The sensor is extremely sensitive to ESD (Electro Static Discharge) and can be damaged by it.

During some stages of the installation process, the protective IR filter glass is exposed to the environment. Do not touch the IR filter glass. Any contamination of the IR filter glass (such as dust or fingerprints) will appear in images that you capture.

Cleaning the Protective IR Filter Glass

1. Remove any condensation that may be inside the ionized nitrogen sprayer nozzle.
2. Spray the protective IR filter glass with ionized nitrogen to remove large dust particles.
3. Fold a cleaning wipe to fit the width of the protective IR filter glass (see image sequence). Hold the wipe with tweezers.

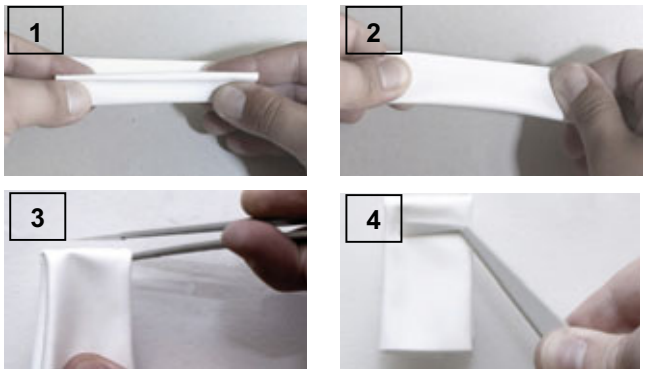

Figure 64: Preparing a cleaning wipe for soaking

4. Soak the cleaning wipe in isopropyl alcohol, making sure it is sufficiently damp but not dripping.

Warning! *Do not touch any part of the cleaning wipe that will come in contact with the protective IR filter glass.*

Warning! *Do not use a dry cleaning wipe. It can cause ESD damage to the sensor.*

5. Clean the protective IR filter with the cleaning wipe, using a single motion from right to left.

Figure 65: Cleaning the protective IR filter glass

6. If necessary, repeat the cleaning procedure until the protective IR filter glass is clean.

Important!

- Never use the dry cloth for cleaning.
- Never clean the protective IR filter glass with the window or lens cleaner.
  The residues from these products may permanently cloud the glass plate.
- Never spray compressed air directly on the digital camera back.
- Do not reuse cleaning wipes.
- Put the protective cover over the sensor plate whenever the digital camera back is not attached to the camera.
- To prevent contamination of the sensor, do not remove the protective IR filter glass.
- The protective IR filter can be replaced only by Leaf dealers or by the Leaf Service Center.

Note: *Cleaning wipes and cleaning fluid are supplied with the Leaf Aptus-II digital camera back. You can order additional wipes from your local Leaf dealer.*

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